

AMENDMENTS TO THE SPECIFICATION

Please amend the Specification as follows. Insertions are shown underlined while deletions are ~~struck through~~.

Please amend the paragraph beginning at page 3, line 15 as follows:

Scheme [2] shows a photochemical deracemization process. As shown in Scheme [2], the total concentration of the enantiomers does not change during the photoreaction. Preferential excitation of one of the enantiomers over the other ~~photochemically~~ shifts the photochemical equilibrium, and the enantiomer ratio is fixed upon termination of irradiation. However, except for inorganic compounds (*Mol. Photochem.* 1969, 1, 271; *Chem. Commun.* 1996, 2627-2628), there are only a few reports of photochemical deracemization. Organic compounds, which exclusively undergo photoderacemization, have been rarely reported. Actually, it appears that side reactions always occur when organic compounds are photochemically deracemized.

Please amend the paragraph beginning at page 9, line 23 as follows:

~~Fig. 13~~Figs. 13(a) and 13(b) shows a simulated calculation and experimental data of **HQ** excited by CPL irradiation (245 nm). Fig. 13 (a) shows the relationship between the optical purity (%op) of the starting material (**HQ**) and conversion. Fig. 13 (b) shows the relationship between the optical purity (%op) of the product (**HN**) and conversion.

Please amended the paragraph beginning at page 10, line 5 as follows:

~~Fig. 14~~Figs. 14(a) and 14(b) shows a simulated calculation and experimental data of **HN** excited by CPL irradiation (245 nm). Fig. 14 (a) shows the relationship between the optical purity (%op) of the starting material (**HN**) and conversion ratio. Fig. 14 (b) shows the relationship between the optical purity (%op) of the product (**HQ**) and conversion.

Please amend the paragraph beginning at page 11, line 13 as follows:

The mixture of ~~enantiomers~~enantiomers includes a racemic mixture that is an equivalent mixture. Diastereomers can also be used in the invention because they can be considered as an *R*-isomer or an *S*-isomer, relative to one asymmetric carbon in the molecular structure, for example, in the case of no interaction between asymmetric centers.

Please amend the paragraph beginning at page 16, line 16 as follows:

The relationship between the optical purity (%op) or %ee of the product (y') and the conversion (% conversion) (x) is defined by equations (3) and (4), in which R' and S' represent the products obtained from enantiomers R and S in the starting material, respectively.

Please amend the paragraph beginning at page 28, line 14 as follows:

On the contrary, as shown in Fig. 4 (b), the UV spectrum of (\pm)-**HQ** exhibits one absorption band composed of an absorption maximum at about 215 nm and an absorption declining toward about 250 nm. This absorption band corresponds to that of methyl acrylate which does not exhibit any absorption at wavelengths longer than 250 nm. As shown in Fig. 4 (d), the CD spectra of (+)-**HQ** and (-)-**HQ** have the maximum at about 215 nm, and thus absorption bands in the UV and CD spectra appear to be composed of a single band. However, the two maxima of anisotropic factor g at 217.5 and 263.5 nm indicate that the UV and CD spectra of (+)-**HQ** and (-)-**HQ** are actually ~~is~~-composed of two bands.

Please amend the paragraph beginning at page 29, line 21 as follows:

These results indicate that the photocyclization progressed quantitatively and no side reactions occurred. The fact that the spectrum of (-)-**HN** irradiated for 127 minutes closely agrees with that of **HQ** confirmed that the photoirradiation efficiently causes the one-way isomerization from **HN** into **HQ**.